IN THE CLAIMS:

1. (previously presented) A method for assembling a rotor assembly for a gas turbine engine, said method comprising:

providing a first rotor blade that includes an airfoil, a platform, a shank, an internal cavity, and a dovetail, wherein the airfoil extends radially outward from the platform, the platform includes a radially outer surface and a radially inner surface, the shank extends radially inward from the platform defined therein, and the dovetail extends from the shank, such that the internal cavity is defined at least partially by the airfoil, the platform, the shank, and the dovetail, and wherein one wall of the shank is convex;

coupling the first rotor blade to a rotor shaft using the dovetail such that during engine operation, cooling air is channeled from the blade internal cavity through a blade impingement cooling circuit for impingement cooling the first rotor blade platform radially inner surface;

positioning a seal pin within at least one of a leading edge seal pin cavity and a trailing edge seal pin cavity defined within the shank and adjacent to the convex wall of the shank; and

coupling a second rotor blade to the rotor shaft such that a platform gap is defined between the first and second rotor blade platforms, and such that during operation a portion of a trailing edge of the first rotor blade platform is facilitated to be cooled by cooling air channeled through a recessed portion of the platform.

2. (original) A method in accordance with Claim 1 wherein each shank includes a pair of opposing sidewalls that extend generally axially between an upstream sidewall and a downstream sidewall, said coupling a second rotor blade to the rotor shaft further comprises coupling the second rotor blade to the shaft such that a shank cavity is defined between the first and second rotor blade shanks.

3. (previously presented) A method in accordance with Claim 2 wherein coupling the first rotor blade to a rotor shaft further comprises coupling the first rotor blade to the shaft such that during operation cooling air is channeled from the shank cavity through a purge slot defined within a portion of the platform radially inner surface.

4. (original) A method in accordance with Claim 2 wherein coupling the first rotor blade to a rotor shaft further comprises coupling the first rotor blade to the shaft such that during operation the platform radially outer surface is film cooled by cooling air channeled through a plurality of film cooling openings that extend between the platform radially inner and outer surfaces.

5. (original) A method in accordance with Claim 2 wherein coupling the first rotor blade to a rotor shaft further comprises coupling the first rotor blade to the shaft such that during operation the platform radially outer surface is convectively cooled by cooling air channeled through a plurality of cooling openings that extend between the platform radially inner and outer surfaces.

6. (original) A method in accordance with Claim 2 wherein coupling the first rotor blade to a rotor shaft further comprises coupling the first rotor blade to the shaft such that during operation the shank cavity is facilitated to be pressurized by airflow entering the cavity through a recessed portion of the rotor blade shank upstream sidewall.

7. (original) A method in accordance with Claim 2 wherein coupling the first rotor blade to a rotor shaft further comprises coupling the first rotor blade to the shaft such that during operation the shank cavity is facilitated to be pressurized by airflow entering the cavity through a recessed portion defined radially inward from an angel wing extending outwardly from the rotor blade shank upstream sidewall.

8. (previously presented) A method in accordance with Claim 2 wherein coupling the first rotor blade to a rotor shaft further comprises coupling the first rotor blade to the shaft such that during operation at least a portion of the platform is facilitated to be convectively

cooled by cooling air channeled through a plurality of openings extending through the platform.

9. (canceled)

10. (previously presented) A method in accordance with Claim 2 wherein positioning a seal pin further comprises positioning a seal pin in only the trailing edge seal pin cavity.

11. (previously presented) A rotor blade for a gas turbine engine, said rotor blade comprising:

a platform comprising a radially outer surface and a radially inner surface, said platform further comprises a leading edge sidewall and a trailing edge sidewall connected together by a convex-side wall and an opposite concave-side wall, a portion of said trailing edge sidewall is recessed between said platform radially outer and radially inner surfaces to facilitate platform trailing edge cooling;

an airfoil extending radially outward from said platform;

a shank extending radially inward from said platform, said shank comprising a leading edge seal pin cavity and a trailing edge seal pin cavity each defined therein adjacent to a convex wall of said shank, each of said leading edge and said trailing edge pin cavity facilitates sealing between adjacent pairs of said rotor blades, said shank further comprises a radial seal pin positioned within said trailing edge seal pin cavity, said shank leading edge seal pin cavity facilitates increasing platform film cooling;

a dovetail extending from said shank such that an internal cavity is defined at least partially by said airfoil, said platform, said shank, and said dovetail; and

a cooling circuit extending through a portion of said shank for supplying cooling air from said cavity for impingement cooling of said platform radially inner surface.

12. (previously presented) A rotor blade in accordance with Claim 11 wherein said platform further comprises a purge slot formed within a portion of said platform radially inner surface, said purge slot configured to channel cooling air therethrough for purging a gap defined between adjacent said rotor blade platforms.

13. (original) A rotor blade in accordance with Claim 11 wherein said platform further comprises a plurality of film cooling openings extending between said platform radially outer and radially inner surfaces for supplying cooling air for film cooling said platform radially outer surface.

14. (previously presented) A rotor blade in accordance with Claim 13 wherein said shank extends axially between a forward sidewall and an aft sidewall, a portion of said forward sidewall is recessed to facilitate increasing pressure of cooling air supplied through said plurality of film cooling openings.

15. (previously presented) A rotor blade in accordance with Claim 14 wherein said shank further comprises an angel wing extending outward from said shank forward sidewall, a portion of said shank forward sidewall radially inward from said angel wing is recessed.

16. (original) A rotor blade in accordance with Claim 11 wherein said platform further comprises a convex-side wall, a concave-side wall and a plurality of convection cooling openings, said convex-side and concave-side walls each extend between said platform radially outer and radially inner surfaces, said plurality of convection cooling openings extend between said cavity and said platform concave-side wall for supplying cooling air for convective cooling of said platform concave-side wall.

17. (previously presented) A rotor blade in accordance with Claim 11 wherein a portion of said platform is chamfered to facilitate reducing a heat transfer coefficient of at least a portion of said platform.

18. – 20. (canceled)

21. (previously presented) A rotor blade in accordance with Claim 11 wherein said leading edge seal pin cavity and said trailing edge seal pin cavity is defined by a pair of substantially parallel axially-disposed sidewalls that are connected by a radially outer sidewall that extends obliquely between said axially-disposed sidewalls.

22. (original) A rotor blade in accordance with Claim 21 wherein said pin cavity radially outer sidewall facilitates enhancing radial pin sealing between adjacent said rotor blades.

23. (previously presented) A gas turbine engine rotor assembly comprising:

a rotor shaft; and

a plurality of circumferentially-spaced rotor blades coupled to said rotor shaft, each said rotor blade comprising an airfoil, a platform, a shank extending radially inward from said platform, and a dovetail, said airfoil extending radially outward from said platform, said platform comprising a radially outer surface and a radially inner surface, said platform further comprising a leading edge sidewall and an opposite trailing edge sidewall connected together by a pair of oppositely disposed platform sidewalls, a portion of said trailing edge sidewall is recessed between said platform radially outer and inner surfaces to facilitate cooling of said platform trailing edge, said shank comprising a leading edge seal pin cavity and a trailing edge seal pin cavity defined therein, each said pin cavity facilitates sealing between adjacent pairs of said rotor blades, said shank further comprises a radial seal pin positioned within said trailing edge seal pin cavity, said shank leading edge seal pin cavity is sized to receive a radial seal pin therein and to channel airflow therethrough to facilitate increasing platform film cooling, said dovetail extending from said shank for coupling said rotor blade to said rotor shaft such that an internal blade cavity is defined at least partially by said airfoil, said platform, said shank, and said dovetail, at least a first of said rotor blades comprising an impingement cooling circuit extending through a portion of said shank for channeling cooling air from said blade cavity for impingement cooling said platform radially inner surface.

24. (previously presented) A gas turbine engine rotor assembly in accordance with Claim 23 wherein each said shank comprises a pair of opposing sidewalls that extend axially between an upstream sidewall and a downstream sidewall, said plurality of rotor blades circumferentially-spaced such that a shank cavity is defined between each pair of adjacent said rotor blades, each said shank cavity radially inward from each said platform.

25. (previously presented) A gas turbine engine rotor assembly in accordance with Claim 24 wherein said first rotor blade further comprises a purge slot defined within said platform radially inner surface, said purge slot for channeling cooling air through a gap defined between adjacent said rotor blade platforms.

26. (previously presented) A gas turbine engine rotor assembly in accordance with Claim 24 wherein said first rotor blade platform further comprises a plurality of film cooling openings extending between said platform radially outer and inner surfaces for channeling cooling air from said shank cavity for film cooling said platform radially outer surface.

27. (previously presented) A gas turbine engine rotor assembly in accordance with Claim 24 wherein a portion of said first rotor blade shank upstream sidewall is recessed to facilitate pressurizing said shank cavity.

28. (previously presented) A gas turbine engine rotor assembly in accordance with Claim 24 wherein each said rotor blade shank further comprises an angel wing extending radially outward from said shank upstream sidewall, a portion of said shank upstream sidewall radially inward from said first rotor blade angel wing is recessed to facilitate pressurizing said shank cavity.

29. (previously presented) A gas turbine engine rotor assembly in accordance with Claim 24 wherein each said rotor blade platform further comprises a convex-side sidewall, a concave-side sidewall, and a plurality of cooling openings, said convex-side and said concave-side sidewalls each extend between said platform radially inner and outer surfaces, said plurality of cooling openings for channeling cooling air therethrough for convective cooling of said platform.

30. (previously presented) A gas turbine engine rotor assembly in accordance with Claim 24 wherein a portion of said first rotor blade platform is chamfered to facilitate reducing a heat transfer coefficient of said platform.

31. – 33. (canceled)

34. (previously presented) A gas turbine engine rotor assembly in accordance with Claim 24 wherein said first rotor blade leading edge seal pin cavity and said trailing edge seal pin cavity is defined by a pair of substantially parallel axially-disposed sidewalls that are connected together by a radially outer sidewall that extends obliquely between said axially-disposed sidewalls.

35. (previously presented) A gas turbine engine rotor assembly in accordance with Claim 34 wherein said first rotor blade pin cavity radially outer oblique sidewall facilitates enhancing radial pin sealing between adjacent said rotor blades.